

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (original): An organic polymer light-emitting element material having a gold complex structure as a part of the side chain or crosslinking group.
2. (original): The organic polymer light-emitting element material as claimed in claim 1, wherein the molecular weight of the organic polymer is from 1,000 to 1,000,000.
3. (currently amended): The organic polymer light-emitting element material as claimed in claim 1 ~~or 2~~, which is obtained by polymerizing a composition containing a polymerizable gold complex where at least one ligand has a polymerizable functional group as the substituent.
4. (original): The organic polymer light-emitting element material as claimed in claim 1, wherein the gold complex structure has an organic phosphine compound as at least one ligand.
5. (original): The organic polymer light-emitting element material as claimed in claim 3, wherein at least one ligand of the polymerizable gold complex is an organic phosphine compound.

6. (original): The organic polymer light-emitting element material as claimed in claim 5, wherein at least one organic phosphine compound as the ligand has a polymerizable functional group as the substituent.

7. (currently amended): The organic polymer light-emitting element material as claimed in claim 4~~any one of claims 4 to 6~~, wherein the organic phosphine compound is represented by formula (1):



wherein  $R^1$  to  $R^3$  each independently represents a hydrogen atom, an alkyl group having 1 to 15 carbon atoms which may have a substituent, an alkyl group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, an alkenyl group having 2 to 15 carbon atoms which may have a substituent, an alkoxy group having 1 to 15 carbon atoms which may have a substituent, an aryl group having 6 to 15 carbon atoms which may have a substituent, a heteroaryl group having 3 to 15 carbon atoms which may have a substituent or an aryloxy group having 6 to 15 carbon atoms which may have a substituent.

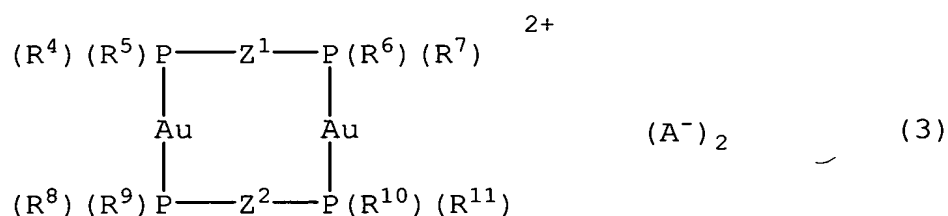
8. (currently amended): The organic polymer light-emitting element material as claimed in claim 4~~any one of claims 4 to 6~~, wherein the organic phosphine compound is represented by formula (2):



wherein R<sup>4</sup> to R<sup>7</sup> each independently represents a hydrogen atom, an alkyl group having 1 to 15 carbon atoms which may have a substituent, an alkyl group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, an alkenyl group having 2 to 15 carbon atoms which may have a substituent, an alkoxy group having 1 to 15 carbon atoms which may have a substituent, an aryl group having 6 to 15 carbon atoms which may have a substituent, a heteroaryl group having 3 to 15 carbon atoms which may have a substituent or an aryloxy group having 6 to 15 carbon atoms which may have a substituent, and

Z<sup>1</sup> represents an organic group which crosslinks two phosphorus atoms, such as alkylene group having 1 to 20 carbon atoms which may have a substituent, alkylene group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, or arylene group having 6 to 20 carbon atoms which may have a substituent.

9. (currently amended): The organic polymer light-emitting element material as claimed in claim 3 ~~any one of claims 3 to 6~~, wherein the polymerizable gold complex has a structure represented by formula (3):



wherein R<sup>4</sup> to R<sup>7</sup> and Z<sup>1</sup> have the same meanings as in claim 8, R<sup>8</sup> to R<sup>11</sup> each independently represents a hydrogen atom, an alkyl group having 1 to 15 carbon atoms which may have a

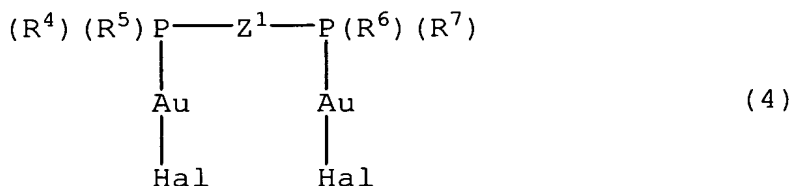
substituent, an alkyl group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, an alkenyl group having 2 to 15 carbon atoms which may have a substituent, an alkoxy group having 1 to 15 carbon atoms which may have a substituent, an aryl group having 6 to 15 carbon atoms which may have a substituent, a heteroaryl group having 3 to 15 carbon atoms which may have a substituent or an aryloxy group having 6 to 15 carbon atoms which may have a substituent,

$Z^2$  represents an organic group which crosslinks two phosphorus atoms, such as alkylene group having 1 to 20 carbon atoms which may have a substituent, alkylene group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, or arylene group having 6 to 20 carbon atoms which may have a substituent, and

$A^-$  represents a monovalent anion,

provided that at least one of  $R^4$  to  $R^{11}$ ,  $Z^1$  and  $Z^2$  has a polymerizable functional group.

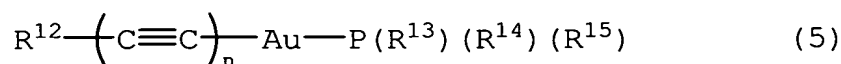
10. (currently amended): The organic polymer light-emitting element material as claimed in claim 3 ~~any one of claims 3 to 6~~, wherein the polymerizable gold complex has a structure represented by formula (4):



wherein  $R^4$  to  $R^7$  and  $Z^1$  have the same meanings as in 8, and Hal represents a halogen atom, provided that at least one of  $R^4$  to  $R^7$  and  $Z^1$  has a polymerizable functional group.

11. (currently amended): The organic polymer light-emitting element material as claimed in claim 1 ~~any one of claims 1 to 4~~, wherein the gold complex structure has at least one alkynyl ligand.

12. (currently amended): The organic polymer light-emitting element material as claimed in claim 3 ~~any one of claims 3 to 6~~, wherein the polymerizable gold complex has a structure represented by formula (5):



wherein  $R^{12}$  represents a hydrogen atom, a cyano group, a silyl group having 3 to 20 carbon atoms, an alkyl group having 1 to 15 carbon atoms which may have a substituent, an alkyl group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, an alkenyl group having 2 to 15 carbon atoms which may have a substituent, an aryl group having 6 to 15 carbon atoms which may have a substituent, a heteroaryl group having 3 to 15 carbon atoms which may have a substituent, an acyl group having 1 to 15 carbon atoms, a carboxyl group, or an alkoxy carbonyl group having 2 to 15 carbon atoms,

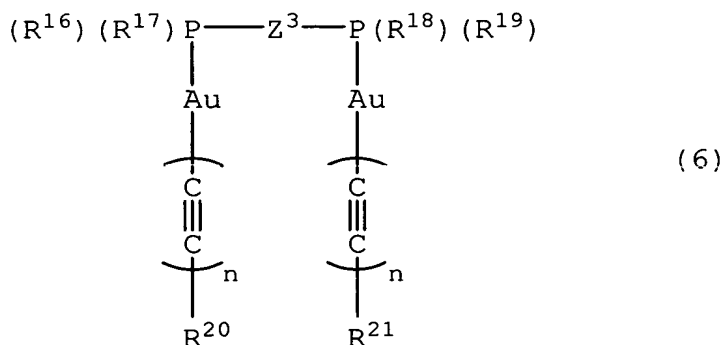
$R^{13}$  to  $R^{15}$  each independently represents a hydrogen atom, an alkyl group having 1 to 15 carbon atoms which may have a substituent, an alkyl group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, an alkenyl group having 2 to 15 carbon atoms which may have a substituent, an alkoxy group having 1 to 15 carbon atoms which may

have a substituent, an aryl group having 6 to 15 carbon atoms which may have a substituent, a heteroaryl group having 3 to 15 carbon atoms which may have a substituent or an aryloxy group having 6 to 15 carbon atoms which may have a substituent, and

n represents an integer of 1 to 5,

provided that at least one of R<sup>12</sup> to R<sup>15</sup> has a polymerizable functional group.

13. (currently amended): The organic polymer light-emitting element material as claimed in claim 3~~any one of claims 3 to 6~~, wherein the polymerizable gold complex has a structure represented by formula (6):



wherein R<sup>16</sup> to R<sup>19</sup> each independently represents a hydrogen atom, an alkyl group having 1 to 15 carbon atoms which may have a substituent, an alkyl group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, an alkenyl group having 2 to 15 carbon atoms which may have a substituent, an alkoxy group having 1 to 15 carbon atoms which may have a substituent, an aryl group having 6 to 15 carbon atoms which may have a substituent, a heteroaryl group having 3 to 15 carbon atoms which may have a substituent or an aryloxy group having 6 to 15 carbon atoms which may have a substituent,

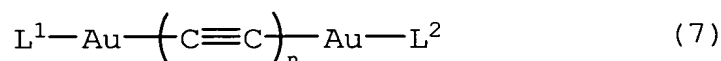
$R^{20}$  to  $R^{21}$  each independently represents a hydrogen atom, a cyano group, a silyl group having 3 to 20 carbon atoms, an alkyl group having 1 to 15 carbon atoms which may have a substituent, an alkyl group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, an alkenyl group having 2 to 15 carbon atoms which may have a substituent, an aryl group having 6 to 15 carbon atoms which may have a substituent, a heteroaryl group having 3 to 15 carbon atoms which may have a substituent, an acyl group having 1 to 15 carbon atoms, a carboxyl group, or an alkoxy carbonyl group having 2 to 15 carbon atoms,  $R^{20}$  and  $R^{21}$  may be linked with each other via a crosslinking group,

$Z^3$  represents an organic group which crosslinks two phosphorus atoms, such as alkylene group having 1 to 20 carbon atoms which may have a substituent, alkylene group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, or arylene group having 6 to 20 carbon atoms which may have a substituent, and

$n$  represents an integer of 1 to 5,

provided that at least one of  $R^{16}$  to  $R^{21}$  and  $Z^3$  has a polymerizable functional group.

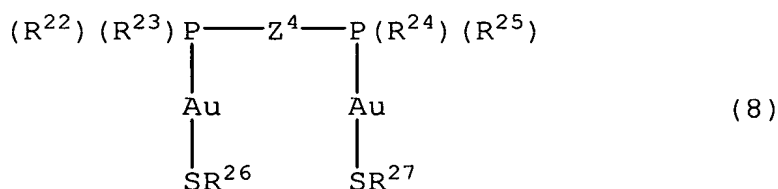
14. (currently amended): The organic polymer light-emitting element material as claimed in claim 3 ~~any one of claims 3, 5 and 6~~, wherein the polymerizable gold complex has a structure represented by formula (7):



wherein  $L^1$  and  $L^2$  each represents a monodentate or bidentate ligand, at least one of  $L^1$  and  $L^2$  is the organic phosphine compound described in claim 7 or 8, and n represents an integer of 1 to 5.

15. (currently amended): The organic polymer light-emitting element material as claimed in claim 3 ~~any one of claims 3 to 6~~, wherein the polymerizable gold complex has at least one thiolato ligand.

16. (currently amended): The organic polymer light-emitting element material as claimed in claim 3 ~~any one of claims 3 to 6~~, wherein the polymerizable gold complex has a structure represented by formula (8):



wherein  $R^{22}$  to  $R^{25}$  each independently represents a hydrogen atom, an alkyl group having 1 to 15 carbon atoms which may have a substituent, an alkyl group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, an alkenyl group having 2 to 15 carbon atoms which may have a substituent, an alkoxy group having 1 to 15 carbon atoms which may have a substituent, an aryl group having 6 to 15 carbon atoms which may have a substituent, a heteroaryl group having 3 to 15 carbon atoms which may have a substituent or an aryloxy group having 6 to 15 carbon atoms which may have a substituent,



$R^{26}$  and  $R^{27}$  each independently represents a hydrogen atom, an alkyl group having 1 to 15 carbon atoms which may have a substituent, an alkyl group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, an alkenyl group having 2 to 15 carbon atoms which may have a substituent, an aryl group having 6 to 15 carbon atoms which may have a substituent, or a heteroaryl group having 3 to 15 carbon atoms which may have a substituent, and  $R^{26}$  and  $R^{27}$  may be linked with each other via a crosslinking group,

$Z^4$  represents an organic group which crosslinks two phosphorus atoms, such as alkylene group having 1 to 20 carbon atoms which may have a substituent, alkylene group having 3 to 15 carbon atoms which has a cyclic structure and which may have a substituent, or arylene group having 6 to 20 carbon atoms which may have a substituent,

provided that at least one of  $R^{22}$  to  $R^{27}$  and  $Z^4$  has a polymerizable functional group.

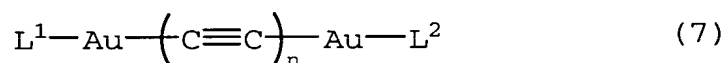
17. (currently amended): The organic polymer light-emitting element material as claimed in claim 3~~any one of claims 3 to 6~~, wherein the polymerizable functional group has radical polymerizability.

18. (currently amended): The organic polymer light-emitting element material as claimed in claim 3~~any one of claims 3 to 6~~, wherein the polymerizable functional group is an organic group having a carbon-carbon double bond.

19. (currently amended): An organic polymer light-emitting element comprising a pair of electrodes having interposed therebetween at least one layer comprising the organic polymer light-emitting element material described in claim 1 ~~any one of claims 1 to 18~~.

20. (currently amended): An organic polymer light-emitting element comprising a pair of electrodes having interposed therebetween at least one layer each comprising one or more organic polymer light-emitting element material described in claim 1 ~~any one of claims 1 to 18~~.

21. (new): The organic polymer light-emitting element material as claimed in claim 3, wherein the polymerizable gold complex has a structure represented by formula (7):



wherein  $L^1$  and  $L^2$  each represents a monodentate or bidentate ligand, at least one of  $L^1$  and  $L^2$  is the organic phosphine compound described in claim 8, and n represents an integer of 1 to 5